

CLAIMS

1. A method for allocating channels, comprising:
determining a communication standard used by a message;
5 determining available channels; and
allocating a channel based on the available channels and
the communication standard used by the message.

2. The method of claim 1 further comprising:
10 sending an instruction to use the channel.

3. The method of claim 2, wherein sending comprises
sending an instruction to a software-defined signal processing
system to allocate the appropriate channel for the message.

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4. The method of claim 1, wherein the spectrum of
channels includes a channel dedicated to AMPS.

5. The method of claim 1, wherein the message is a call.

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6. The method of claim 1, wherein the message is a
received message.

7. The method of claim 1, wherein the message is being
25 processed for transmission.

8. Apparatus for allocating channels, comprising:
a memory that stores executable instruction signals; and
a processor that executes the instruction signals to:

5 determine a communication standard used by a
message;

 determine available channels; and

 allocate a channel based on the available channels
and the communication standard used by the message.

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9. The apparatus of claim 8 further comprising
instructions to:

 send a notification to use the channel.

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10. The apparatus of claim 9, wherein to send an
instruction comprises sending an instruction to a software-
defined signal processing system to allocate the appropriate
channel for the message.

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11. The apparatus of claim 8, wherein the spectrum of
channels includes a channel dedicated to AMPS.

12. The apparatus of claim 8, wherein the message is a
call.

13. The apparatus of claim 8, wherein the message is a received message.

5 14. The apparatus of claim 8, wherein the message is being processed for transmission.

15. An article comprising a machine-readable medium that stores executable instruction signals allocating channels, the
10 instruction signals causing a machine to:

 determine a communication standard used by a message;
 determine available channels; and
 allocate a channel based on the available channels and the communication standard used by the message.

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16. The article of claim 15, further comprising instruction signals causing a machine to:

 send notification to use the channel.

20 17. The article of claim 16, wherein to send notification comprises sending an instruction to a software-defined signal processing system to allocate the appropriate channel for the message.

18. The article of claim 15, wherein the spectrum of channels includes a channel dedicated to AMPS.

19. The article of claim 15, wherein the message is a
5 call.

20. The article of claim 15, wherein the message is a received message.

10 21. The article of claim 15, wherein the message is being processed for transmission.

22. A software-defined signal processing system, comprising:

15 a controller;

a set of primary servers, each server includes software required to execute a communications standard; and

a back-up server that supports the set of primary servers in case of failure;

20 wherein the back-up server is configured to perform the functions of a failed server from the set of primary servers when the failed server fails.

23. The system of claim 22, wherein each primary server includes objects, network connections and memory buffers that mirror the primary server.